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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,194	12/31/2003	Brian C. Reising	8R08.1-030	9176
23506	7590	03/08/2006		
GARDNER GROFF SANTOS & GREENWALD, P.C. 2018 POWERS FERRY ROAD SUITE 800 ATLANTA, GA 30339			EXAMINER WERNER, JONATHAN S	
			ART UNIT	PAPER NUMBER
			3732	

DATE MAILED: 03/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/750,194	REISING, BRIAN C.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jonathan Werner	3732	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 2/6/06.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) 14-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 & 28-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/13/04</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I, claims 1-13 and 28-52 in the reply filed on 2/6/06 is acknowledged. An Office Action on the merits of claims 1-13 and 28-52 follows below:

### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(e), which papers have been placed in the file. Application for patent was filed not later than 12 months after the date on which the provisional application was filed. Additionally, patent application contains or is amended to contain a specific reference to the provisional application.

### ***Information Disclosure Statement***

3. The information disclosure statement (IDS) submitted on 5/13/04 was filed before the mailing date of a first Office Action on the merits. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Objections***

4. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 42 has been renumbered 43, and subsequent claims 43-52 have been accordingly shifted and renumbered as claims 44-53.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 35-52 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In claims 35-41, the steps defined in each claim, i.e. determining values, selecting values and conducting a test run, all produce no tangible results, and thus are considered as abstract ideas.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1,4-13 and 28-33, 35, 42-47 and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen (US 6,120,287). As to claims 1, 28-29 and 35, Chen discloses a device for positioning orthodontic brackets and measuring certain parameters comprising an adjustable vertical register assembly (44), an adjustable rotation register assembly (38), an adjustable torque register assembly (35), and a

bracket holder assembly (14) that holds a bracket in a fixed relationship and is adjustable to orient the bracket in three dimensions (column 6, lines 55-58). As to claim 4, the torque register assembly includes a body (28), a scale (68), and a register head (26) that is rotationally coupled to the body and operably coupled to the scale (Figure 6). As to claim 5, the register head is biased towards vertical (Figure 6) so that it maintains engagement with the tooth (Figure 2). As to claim 6, the register head includes a plate (68) and a perpendicular member (31,37). As to claims 7 and 30, the vertical register assembly, the rotation register assembly, and the torque register assembly are free-floating and biased towards engagement with the model teeth (Figures 1-3). As to claim 8, the device comprises a platform (14) for securely mounting the teeth model. As to claim 9, Figure 1 shows the device comprises a base (12) and a superstructure (including parts 14, 32, 36, 38) mounted to the base. As to claim 10, the superstructure further comprises a turntable (41) that is mounted to the base and adapted for rotation in a horizontal plane (Figures 2 and 3), and wherein the platform (14) is mounted to the turntable (Figure 3) and adapted for adjustment in three dimensions (column 6, lines 55-58). As to claims 11 and 13, the device further comprises a frame having at least two attachments (i.e. 32,50,18,70) that are capable of attaching the torque register assembly, the bracket holder assembly, and the model teeth orienting assembly (Figure 3). It should be noted that with regard to claims 11 and 13, the act of interchangeably attaching each said assembly is considered a functional limitation, and as such, is given little patentable weight as long as the reference shows the determined structural limitations imposed. As to claim 12 the device further comprises a model teeth orienting

assembly (18,50) having an engagement member (52). As to claims 31 and 32, the bracket holder assembly includes a bracket receiver (52) that further includes a control (44,48) for manipulating the bracket receiver to engage the bracket. As to claim 33, the bracket receiver is capable of being adapted to hold a clip since the same receiver can also hold a bracket. As to claims 42-44, Chen discloses the step of registering an axial position, a torque position, and a rotational position of each tooth comprises moving a vertical register assembly, a torque register assembly, and a rotation register assembly, respectively, into engagement with the tooth (Figures 1-3). As to claim 45, the bracket holder assembly is adjusted by a vertical control (44) and a horizontal control (40). As to claims 46 and 47, the teeth model is secured in a fixed position on a platform and leveled (Figures 1-3). As to claim 49, Figures 1-3 show the bracket holder assembly is oriented in three dimensions relative to the tooth so that the opening of the bracket is coordinated with adjacent bracket openings to form an arch-shaped wire pathway.

7. Claims 1-3, 7-13 and 28-33, 35, 37, 42-50 and 52-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Creekmore (US 4,812,118). As to claims 1, 28-29 and 35, Creekmore discloses a device for positioning orthodontic brackets and measuring certain parameters comprising an adjustable vertical register assembly (column 8, line 45), an adjustable rotation register assembly (column 8, lines 39-44 & lines 59-66), an adjustable torque register assembly (column 7, lines 13-15 & 28-38), and a bracket holder assembly (94) that holds a bracket in a fixed relationship and is adjustable to orient the bracket in three dimensions. As to claim 2, the vertical register

assembly includes two vertical register arms (164,166) and a control (162) coupled to the register. As to claim 3, the rotation register assembly includes two rotation register arms and a control (column 8, lines 66-68). As to claims 7 and 30, the vertical register assembly, the rotation register assembly, and the torque register assembly are free-floating and biased towards engagement with the model teeth (Figures 1). As to claim 8, the device comprises a platform (53) for securely mounting the teeth model. As to claim 9, Figure 1 shows the device comprises a base (16) and a superstructure (36,66,96) mounted to the base. As to claim 10, the superstructure further comprises a turntable (52) that is mounted to the base and adapted for rotation in a horizontal plane (Figure 3), and wherein the platform is mounted to the turntable and adapted for adjustment in three dimensions (Figure 1). As to claims 11 and 13, the device further comprises a frame having at least two attachments that are capable of attaching the torque register assembly, the bracket holder assembly, and the model teeth orienting assembly (Figures 1-3). It should be noted that with regard to claims 11 and 13, the act of interchangeably attaching each said assembly is considered a functional limitation, and as such, is given little patentable weight as long as the reference shows the determined structural limitations imposed. As to claim 12 the device further comprises a model teeth orienting assembly (Figures 1-3) having an engagement member (Figure 4). As to claims 31 and 32, Figure 4 shows the bracket holder assembly includes a bracket receiver that further includes a control (26) for manipulating the bracket receiver to engage the bracket. As to claim 33, the bracket receiver is capable of being adapted to hold a clip since the same receiver can also hold a bracket. As to claim 37,

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Creekmore discloses determining a vertical height value for each bracket (column 3, lines 27-31). As to claims 42-44, Creekmore discloses the step of registering an axial position, a torque position, and a rotational position of each tooth comprises moving a vertical register assembly, a torque register assembly, and a rotation register assembly, respectively, into engagement with the tooth (column 10, lines 43-51). As to claim 45, the bracket holder assembly is adjusted by a vertical control (135) and a horizontal control (150). As to claims 46 and 47, the teeth model is secured in a fixed position on a platform and leveled (Figures 1-3). As to claim 48, the device is capable of loading one of the brackets onto a clip and loading the clip onto a bracket holder assembly. As to claim 49, Figures 1-3 show the bracket holder assembly is oriented in three dimensions relative to the tooth so that the opening of the bracket is coordinated with adjacent bracket openings to form an arch-shaped wire pathway. As to claim 50, positioning the bracket comprises holding the bracket in a suspended position horizontally offset from the model tooth and further comprising adhering the bracket in the suspended position (Figure 3). As to claim 52, Figures 1 and 4 show the bracket can be positioned on both the lingual and buccal surface of the tooth. As to claim 53, Figure 3 and 4 show that at least two brackets can be positioned on a single tooth.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the



invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen or Creekmore in view of Cusato (US 4,001,940). Chen and Creekmore both disclose a device for positioning orthodontic brackets as previously described, but fail to show the bracket receiver is keyed for alignment with a matingly keyed portion of the clip. Cusato, however, teaches an orthodontic apparatus that is keyed for alignment with a matingly keyed portion of a bracket clip (Figure 13). Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to make the bracket receiver properly align with a mating portion of the bracket clip in order to properly secure the bracket as taught by Cusato.

9. Claims 36 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen or Creekmore in view of Allesee (US 5,820,370). Chen and Creekmore disclose a device for positioning orthodontic brackets as previously described, but fail to show the step of selecting predetermined torque values from a table. Allesee, however, teaches a preadjusted orthodontic bracket system in which tables listing torque values preformed into various conventional bracket systems are referenced (Figures 4 and 8-17). Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to select predetermined torque values from a table in order to make preadjustments to optimize the bracket as taught by Allesee.

10. Claims 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Chen or Creekmore in view of Aspel (US 3,906,634). Chen and Creekmore both disclose a device for positioning orthodontic brackets as previously described, but fail to show the step of determining a useable horizontal value for each bracket comprises selecting a reference point for a segment of the teeth and measuring the actual horizontal width of each tooth. Aspel, however, teaches a method of making tooth width measurements (Figures 1-7). Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to determine a horizontal width of each tooth and select a reference point for a segment of the teeth in order to properly mark an archwire with tooth widths as taught by Aspel. As to claim 41, Creekmore discloses a reference point is selected from a center of a facial surface of each tooth at a vertical height (column 12, lines 3-8).

11. Claims 39 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen or Creekmore. Chen and Creekmore both disclose a device for positioning orthodontic brackets as previously described, but fail to disclose the step of repeating the steps of claim 35 or performing a test run. However, it would have been an obvious matter of choice to one having ordinary skill in the art at the time of applicant's invention to repeat said steps or perform a test run in order obtain more data to check for accuracy.

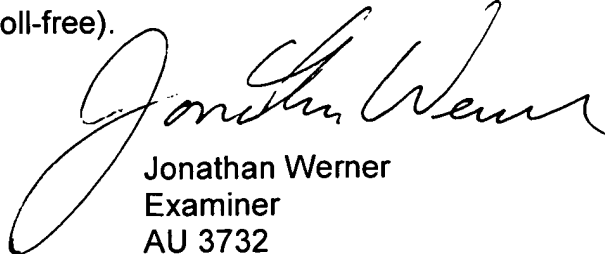
**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please refer to included form PTO-892 for all additional pertinent prior art related to orthodontic bracket positioning devices.

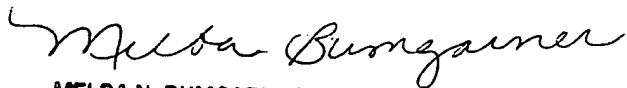
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Werner whose telephone number is (571) 272-2767. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jonathan Werner  
Examiner  
AU 3732

JSW  
3/3/06

  
MELBA N. BUMGARNER  
PRIMARY EXAMINER